

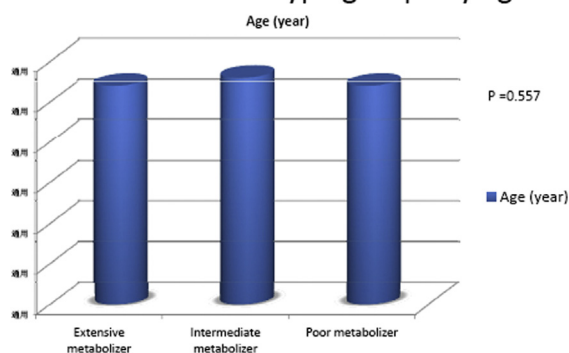
CYP2C19*2,*3 carriers with cardiovascular diseases and ready to receive PCT are suggested to pay more attention to stent thrombosis when using clopidogrel. However, there are differences in cardiovascular and bleeding events between different metabolizer of clopidogrel with different CYP2C19*2,*3 Genotype. We surmised that there are no statistically significant between different metabolizer of Clopidogrel of bleeding and thrombotic events in acute coronary syndrome patients.

Methods: We enrolled 208 acute coronary syndrome patients from 11/01,2012 to 10/01,2013, which enrolled in our department of cardiology of Beijing Hospital. All the patients underwent successful percutaneous coronary drug-eluting stent implantation. CYP2C19 gene Genotype were detected in all patients, and according to test results into three groups (Extensive metabolizer, Intermediate metabolizer, Poor metabolizer). All candidates were all receiving dual antiplatelet therapy (clopidogrel 75mg QD plus aspirin 100mg QD), were given loading dose of clopidogrel 600 mg and aspirin 300mg. All the patients were followed three months and not changed the daily dose of clopidogrel and aspirin. The cardiovascular endpoints stent thrombosis and bleeding events rates were statistically by SPSS 16.0.

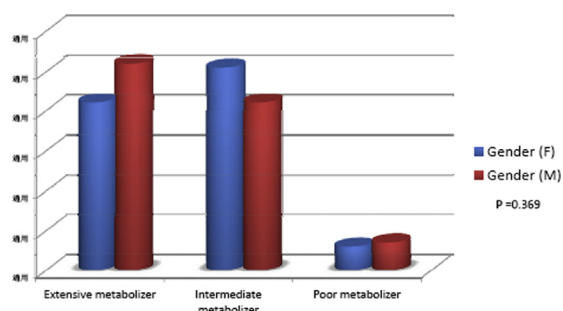
Results: After taking clopidogrel after stent implantation, cardiovascular event rates of three groups (Extensive metabolizer, Intermediate metabolizer, Poor metabolizer) were 28.6%, 26.0%, 25.0%, $P = 0.926$; bleeding event rate of three groups were 12.0%, 14.5%, 10%, $P = 0.867$; thrombotic event rates of three groups were 5.3%, 13.0%, 9.1%, $P = 0.256$. All clinical endpoint events were not statistically significant.

Conclusion: We found that there no statistically significant different about clinical events between three metabolizer type groups. However, because the number of cases were not large, so it was early to make up conclusions that it is not to change the daily dose of clopidogrel the determined by CYP2C19 gene Genotype. And it need more research.

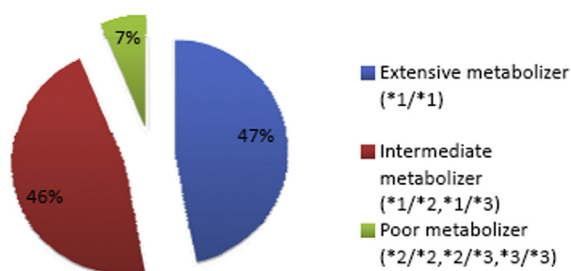
three metabolizer type groups by age



three metabolizer type groups by gender



three metabolizer type groups



TCTAP A-035

Aspirin Versus Clopidogrel Following Dual Antiplatelet Therapy on the Era of Drug-eluting Stents

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Background: Dual antiplatelet therapy (DAPT) for at least 12 months is currently recommended in all patients with drug-eluting stent (DES) implantation. However, there are few studies compared between aspirin monotherapy versus clopidogrel monotherapy after DAPT in patients implanted with DES. We sought to compare the efficacy and safety of clopidogrel versus aspirin following 12-month of DAPT in patients undergoing percutaneous coronary intervention (PCI) with DES.

Methods: An observational study was conducted on consecutive patients receiving DES at Samsung Medical Center in Korea between January 2003 and December 2010. Landmark analyses were performed among patients who were event-free (no death, myocardial infarction [MI], revascularization, or cerebrovascular accident [CVA]) at 12-month follow-up. At this point, patients were divided into two groups: aspirin ($n = 2,477$, 76%) versus clopidogrel ($n = 784$, 24%). Primary outcome was a composite of cardiac death, MI, or CVA during follow-up. We used weighted Cox proportional hazards models using inverse-probability-of-treatment weighting.

Results: Clinical, angiographic and procedural characteristics revealed more comorbidities and more complex lesions in clopidogrel group compared with aspirin group. During median follow-up of 59 months, 166 primary composite events were occurred. In multivariate analysis, clopidogrel was associated with a risk reduction in a composite of cardiac death, MI, or CVA ($p = 0.006$). A tendency of risk reduction was also seen in each of cardiac death, MI and CVA.

Conclusion: Following 12-month of DAPT, clopidogrel monotherapy may be associated with a risk reduction of recurrent ischemic events compared with aspirin in patients undergoing PCI with DES.

| | Aspirin (n=2477) | Clopidogrel (n=784) | IPTW-adjusted HR (95% CI) | p value |
|---------------------------|------------------|---------------------|---------------------------|---------|
| Cardiac death | 50 (2.0) | 7 (0.9) | 0.54 (0.25-1.15) | 0.11 |
| MI | 51 (2.1) | 7 (0.9) | 0.42 (0.17-1.04) | 0.06 |
| Stent thrombosis | 18 (0.7) | 1 (0.1) | 0.12 (0.01-2.19) | 0.15 |
| CVA | 60 (2.4) | 11 (1.4) | 0.62 (0.32-1.20) | 0.16 |
| Cardiac death or MI | 93 (3.8) | 13 (1.7) | 0.51 (0.28-0.93) | 0.03 |
| Cardiac death, MI, or CVA | 144 (5.8) | 22 (2.8) | 0.51 (0.32-0.83) | 0.006 |

TCTAP A-036

Dyspnoea - Is It a Serious Issue with Ticagrelor?

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Background: Studies that compared the reversible P2Y12 inhibitor ticagrelor with the irreversible inhibitor clopidogrel, dyspnea was observed more frequently with ticagrelor versus clopidogrel-treated patients (13.8% vs. 7.8%). Out of patients presenting with dyspnea it was stopped in only less than 1%. How serious is it? How do the Indian patients respond to it-is not known.

Methods: All the patients who presented in emergency room with diagnosis of Acute Coronary Syndrome (ACS) and started on ticagrelor along with aspirin as dual antiplatelet therapy were analysed and prospectively followed for the period of 6 months.

Results: In our experience since October 2012, 166 Acute Coronary Syndrome (ACS) patients with the mean age of 62 ± 8 years were started on ticagrelor along with aspirin as dual antiplatelet therapy. Of these 72% were male, 35% had hypertension, 42% were diabetic, 30% had dyslipidemia and 20% had history of smoking while none of the patient had bronchial asthma or chronic obstructive airway disease. These patients were followed up at one week, one month and 6 months. Of 166 patients 31 patients had complaints of dyspnea 95% of times at one week of follow up. Of all patients complaining of dyspnea five presented to the emergency department and were extensively evaluated to rule out other differentials. Out of 31 patients with dyspnea 20 i.e. 12% of total and 64.5% of patients with dyspnea ticagrelor had to be stopped, following which patients improved. In the remaining 11 patients dyspnea improved with time and no patient was discontinued ticagrelor after one month of follow up due to dyspnea.

Conclusion: Ticagrelor-related dyspnea is more frequent and more severe in intensity in Indian population as compared to the population reported in PLATO study. It is the main reason for the discontinuation of ticagrelor in patients of ACS in whom it was started as a dual antiplatelet regimen.